UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,105	05/04/2001	Chenhuei J. Chiang	SVL920010040US1	1993

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EXAMINER
CAO, DIEM K

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/849,105	CHIANG ET AL.
	Examiner	Art Unit	
	Diem K Cao	2126	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _04 May 2001_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-12_ is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-12_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

      Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

      Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

      a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
          application from the International Bureau (PCT Rule 17.2(a)).

      * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _02-12-2002_.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-12 are presented for examination.

2.   The cross references related to the application cited in the specification must be updated

(i.e. the relevant status, with PTO serial numbers or patent numbers where appropriate, on pages

1-2).

Double Patenting

3.   The nonstatutory double patenting rejection is based on a judicially created doctrine
grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or
improper timewise extension of the "right to exclude" granted by a patent and to prevent possible
harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.
Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686
F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA
1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
         A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to
overcome an actual or provisional rejection based on a nonstatutory double patenting ground
provided the conflicting application or patent is shown to be commonly owned with this
application. See 37 CFR 1.130(b).
         Effective January 1, 1994, a registered attorney or agent of record may sign a terminal
disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR
3.73(b).

4.   Claims 1-12 are provisionally rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claims 1-4, 14-16, 26-28, 39 and

41 of copending Application No. 09/849,190. Although the conflicting claims are not identical,

they are not patentably distinct from each other because the only different between the instant

application and the copending application is the instant application claims "a form or language

running on the application server" and "the metamodel data of the target transaction message

formatter including a message descriptor, logical page, password, segment, message field, device

descriptor, device type, device division, device page and device field", wherein the copending

application claims "the high level assembler running on the application server". It would have

been obvious to one of ordinary skill in the art, the language application and the high level

assembler application are both legacy applications, and all the steps are identical in two

applications.

     This is a provisional obviousness-type double patenting rejection because the conflicting

claims have not in fact been patented.

5.   Claims 1-12 are provisionally rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claims 1-4, 6-8, 11-13, 19 and 22

of copending Application No. 09/849,377. Although the conflicting claims are not identical,

they are not patentably distinct from each other because the only different between the instant

application and the copending application is the instant application claims "a form or language

running on the application server" and "the metamodel data of the target transaction message

formatter including a message descriptor, logical page, password, segment, message field, device

descriptor, device type, device division, device page and device field", wherein the copending

application claims "a language running on the application server". It would have been obvious to

one of ordinary skill in the art language is a programming language, and all the steps in the two

applications are identical, therefore, one could apply any language to the system of instant

application.

     This is a provisional obviousness-type double patenting rejection because the conflicting

claims have not in fact been patented.

6.   Claims 1-12 are provisionally rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claims 1-4, 14-16, 26-28, 39 and

42 of copending Application No. 09/849,563. Although the conflicting claims are not identical,

they are not patentably distinct from each other because the only different between the instant

application and the copending application is the instant application claims "a form or language

running on the application server" and "the metamodel data of the target transaction message

formatter including a message descriptor, logical page, password, segment, message field, device

descriptor, device type, device division, device page and device field", wherein the copending

application claims "PL/I running on the application server". It would have been obvious to one

of ordinary skill in the art language is a programming language, and all the steps in the two

applications are identical, therefore, one could apply PL/I language to the system of instant

application.

        This is a provisional obviousness-type double patenting rejection because the conflicting

claims have not in fact been patented.

7.   Claims 1-12 are provisionally rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claims 1-4, 14-16, 26-28, 39 and

42 of copending Application No. 09/849,813. Although the conflicting claims are not identical,

they are not patentably distinct from each other because the only different between the instant

application and the copending application is the instant application claims "a form or language

running on the application server" and "the metamodel data of the target transaction message

formatter including a message descriptor, logical page, password, segment, message field, device descriptor, device type, device division, device page and device field", wherein the copending application claims "COBOL running on the application server". It would have been obvious to one of ordinary skill in the art all the steps of the invention are the same in both applications, and COBOL is one type of programming language, which could be replaced in the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8.   Claims 1-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 09/849,816. Although the conflicting claims are not identical, they are not patentably distinct from each other because the only different between the instant application and the copending application is the instant application claims "a form or language running on the application server" and "the metamodel data of the target transaction message formatter including a message descriptor, logical page, password, segment, message field, device descriptor, device type, device division, device page and device field", wherein the copending application claims "the form or language for the transaction manager running on the application server" and "the metamodel data of the target transaction manager including control data, state data, and user data". It would have been obvious to one of ordinary skill in the art all the steps of the invention are the same in both applications, and the instant application also support transaction between client and server applications.

This is a _provisional_ obviousness-type double patenting rejection because the conflicting

claims have not in fact been patented.

9.   Claims 1, 5, and 8 are provisionally rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claims 1 and 10 of copending

Application No. 10/310,343. Although the conflicting claims are not identical, they are not

patentably distinct from each other because the only different between the instant application and

the copending application is the instant application claims "_a form or language_ running on the

application server" and "the metamodel data of the target transaction message formatter

including a message descriptor, logical page, password, segment, message field, device

descriptor, device type, device division, device page and device field", wherein the copending

application claims "_a first target language_ running on the application server" and "said Type

Descriptor class connector metamodels comprising of an Instance Type Descriptor Base class, a

Type Descriptor Language Element class, and a Language Element Model inheriting from Type

Description Language element class". It would have been obvious to one of ordinary skill in the

art language could be any programming language, and it could be replaced by another language

because all the steps are identical in both applications and both share the same purpose.

This is a _provisional_ obviousness-type double patenting rejection because the conflicting

claims have not in fact been patented.

Claim Rejections - 35 USC § 101

10.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11.   Claims 11-12 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. Claim 11 claims a product only without any function and use and the purpose of the product.

Claim Objections

12.   Claims 7 and 10 are objected to because of the following informalities:

Claims 7 and 10 cite "an connector" should be "a connector".

Appropriate corrections are required.

Claim Rejections - 35 USC § 112

13.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14.   Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "to the language running on the application server" in step (i). There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "converting the source language to the transaction message formatter" which is unclear. Examiner interprets as "converting the source language to the target language", so it will be consistent with the limitations in steps (i) and (ii).

Claim 5 recites the limitation "to a language and a transaction message formatter running on the server" which is unclear. Examiner interprets as "to a language for a transaction message formatter running on the server" for examining purpose.

Claim 5 recites the limitation "the application server" in step (d). There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "to convert a response" in step (d) which should be "to convert the response" because it refers back to "receive a response" in step (d), and "wherein connector between the client and the server" in step (e) should be "wherein the connector between the client and the server" because it "connector" refers back to "the connector" in step (b).

Claim 8 recites the limitation " the application server " in step (c). There is insufficient antecedent basis for this limitation in the claim.

Claim 8 cites "the connector ... to receive the application request from the server" in step (c) should be "the connector ... to receive the response to the application request from the server", and "to convert a response" in step (c) should be "to convert the response".

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

15.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16.   Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devine et al

(U.S. 2003/0191970 A1) in view of Yee et al (U.S. 6,738,975 B1).

17.   **As to claim 1**, Devine teaches

-     initiating the application request on the end user application in a first language with a first

      application program (The customer workstation ... and front-end services; page 4, section

      0058 and client-tier software ... Java classes; page 4, left column, lines 1-5 and client

      message, the request; page 5, section 0068 and request from an application running on the

      customer's workstation; page 6, section 0074),

-     transmitting the application request to the server (the messages created ... Web Servers

      24; page 7, section 0095 and The DMZ ... the user section; page 5, section 0068) and

      converting the application request from the first language of the first end user application

      to the legacy language application running on the application server (a translation process

      for translating a message into an underlying message; page 8, section 0099),

-     processing the application request on the application server (other legacy or host platform

      ... at the client browser; page 5, section 0073),

-     transmitting a response to the application request from the application server to the end

      user application, and converting the response from the legacy language to the first

      language of the first end user application (Data returned ... to client format ... response

to the request; page 8, section 0099 and Any data returned from the application server is

translated back to client format and returned over the Internet to the client workstation;

page 6, section 0074), and

- wherein the end user application and the application server have at least one connector

    therebetween (legacy adapter; page 3, section 0054 and Fig. 1 and proxy; page 8, section

    0099), and the steps of (i) converting the application request from the first language of

    the first end user application as a source language to the legacy language running on the

    application server as a target language (a translation process for translating a message

    into an underlying message; page 8, section 0099), and (ii) converting a response to the

    application request from the legacy language running on the application server as a

    source language to the first language of the first end user application as a target language

    (Any data returned from the application server is translated back to client format; page 6,

    section 0074) using the metamodels of respective source and target language (metadata;

    page 6, section 0081 and proxy specific data ... providing a service; page 8, section

    0097), and converting the source language to the target language (a translation process

    for translating a message into an underlying message; page 8, section 0099 and Any data

    returned from the application server is translated back to client format; page 6, section

    0074).

18.   However, Devine does not teach a form for the transaction message formatter running on

the application server, and populating the connector metamodels with metamodel data of each of

the respective source and target transaction message formatter, the metamodel data of the target

transaction message formatter including a message descriptor, logical page, password, segment, message field, device descriptor, device type, device division, device page and device field. Devine teaches the system support different type of transaction such as synchronous and asynchronous transaction type (page 6, sections 0075-0076), and control data (type of transaction; page 6, sections 0075-0076). Yee teaches populating the connector metamodels with metamodel data of each of the respective source and target languages (The user identifies ... actual output message; col. 21, lines 1-11 and A transformer implements ... to the target objects; col. 21, lines 43-55). Yee also teaches the system allows integrating different type of applications (col. 13, lines 52-58), wherein each has different type of interface protocols, data structure (col. 5, lines 17-23 and col. 16, lines 62-65) and the system allows transform content and format of the data so the data could be shared between multiple applications (col. 18, lines 23-29) using message definition object, mapping definition object, filter definition object and integration object (col. 17, line 36 – col. 18, line 4). Although Yee's system does not clearly teach all the element of the metamodel metadata, it would have been obvious to modify and improve the system of Devine and Yee so the data not only can be shared but can also be display at different front-end applications with different computing systems.

19.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Devine and Yee because Yee provides a fast and simple integration of applications, legacy applications while reduce or substantially eliminate the need for the expensive custom coding that is traditionally required to integrate applications.

20.   **As to claim 2**, Devine teaches the end user application is a web browser (The customer

workstation ... browser based user interface; page 3, section 0056).

21.   **As to claim 3**, Devine teaches the end user application is connected to the application

server through a web server, and the web server comprises a connector (customer workstation,

web server, application server, adapter programs; page 3, sections 0053-0055 and Fig. 1).

22.   **As to claim 4**, Devine does not teach the metamodel metadata comprises invocation

metamodel metadata, application domain interface metamodel metadata, and type descriptor

metamodel metadata. However, Devine teaches metadata is used (page 6, section 0081). Yee

teaches connector (agent adapter) mediate differences interface protocols and data structures

between applications to provide a uniform, normalized view of business event (col. 16, lines 62-

65), message definition object identifies data of an enterprise application, and well-defined

message format to describe the layout of the native data (col. 17, lines 49-54 and 48-61 and col.

19, lines 25-44), and mapping definition objects define how the system will transform system

messages extract from one or more applications to messages needed by other applications (col.

17, lines 55-58 and col. 20, lines 53-59). Although Yee does not use the same terms as defined in

the instant application, the metadata in the system of Yee covers the same as in the system of the

application. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teaching of Devine and Yee because it will improve the

system of Devine because the system of Yee provides an efficient and cost effective information

sharing.

23.   **As to claims 5 and 8**, they correspond to the method claim of claim 1 except they are

transaction processing system claims.

24.   **As to claims 6-7**, see rejections of claims 2-3 above.

25.   **As to claims 9-10**, see rejection of claims 2-3 above.

26.   Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yee et al

(U.S. 6,738,975 B1) in view of Mellen-Garnett et al (U.S. 6,094,688).

27.   **As to claim 11**, Yee teaches connector (agent adapter) mediate differences interface

protocols and data structures between applications to provide a uniform, normalized view of

business event (col. 16, lines 62-65), message definition object identifies data of an enterprise

application, and well-defined message format to describe the layout of the native data (col. 17,

lines 49-54 and 48-61 and col. 19, lines 25-44), and mapping definition objects define how the

system will transform system messages extract from one or more applications to messages

needed by other applications (col. 17, lines 55-58 and col. 20, lines 53-59). Although Yee does

not use the same terms as defined in the instant application, the metadata in the system of Yee

covers the same as in the system of the application. Yee further teaches a metamodel metadata

repository of source and target language metamodel metadata (The repository service 135 ...

metadata; col. 15, lines 55-58). Yee teaches populating the connector metamodels with

metamodel data of each of the respective source and target languages (The user identifies ...

actual output message; col. 21, lines 1-11 and A transformer implements ... to the target objects;

col. 21, lines 43-55). Yee also teaches the system allows integrating different type of applications

(col. 13, lines 52-58), wherein each has different type of interface protocols, data structure (col.

5, lines 17-23 and col. 16, lines 62-65) and the system allows transform content and format of the

data so the data could be shared between multiple applications (col. 18, lines 23-29) using

message definition object, mapping definition object, filter definition object and integration

object (col. 17, line 36 – col. 18, line 4). Although Yee's system does not clearly teach all the

element of the metamodel metadata, it would have been obvious to modify and improve the

system of Devine and Yee so the data not only can be shared but can also be display at different

front-end applications with different computing systems.

28.   However, Yee does not explicitly teach invocation metamodel metadata. Mellen-Garnett

teaches invocation metamodel metadata (API manipulator; col. 19, lines 6-10).

29.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teaching of Yee and Mellen-Garnett because it improves the method

for sharing information between applications written in different languages in the computing

system, and the transaction service of Mellen-Garnett provides consistency across applications in

the system.

30.   **As to claim 12**, Yee teaches connector (agent adapter) mediate differences interface

protocols and data structures between applications to provide a uniform, normalized view of business event (col. 16, lines 62-65), message definition object identifies data of an enterprise application, and well-defined message format to describe the layout of the native data (col. 17, lines 49-54 and 48-61 and col. 19, lines 25-44), and mapping definition objects define how the system will transform system messages extract from one or more applications to messages needed by other applications (col. 17, lines 55-58 and col. 20, lines 53-59). Although Yee does not use the same terms as defined in the instant application, the metadata in the system of Yee covers the same as in the system of the application.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K Cao whose telephone number is (703) 305-5220. The examiner can normally be reached on Monday - Thursday, 9:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
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